

Benchmarks: BM #1 Sta. 0+53, 30' Rt. RR Spike in Power Pole, Elev. = 446.75
 BM #2 Chiseled "□" in S.E. Wing Abandoned RR Bridge, Elev. = 452.01

Existing Structure: S.N. 085-3081, Originally built in 1935 as section 6-B-MFT. The original structure consisted of a two-span reinforced concrete deck with steel WF beams on closed timber abutments and a timber pile bent pier. The back to back abutment length is 62'-0" and out to out deck width is 23'-0".

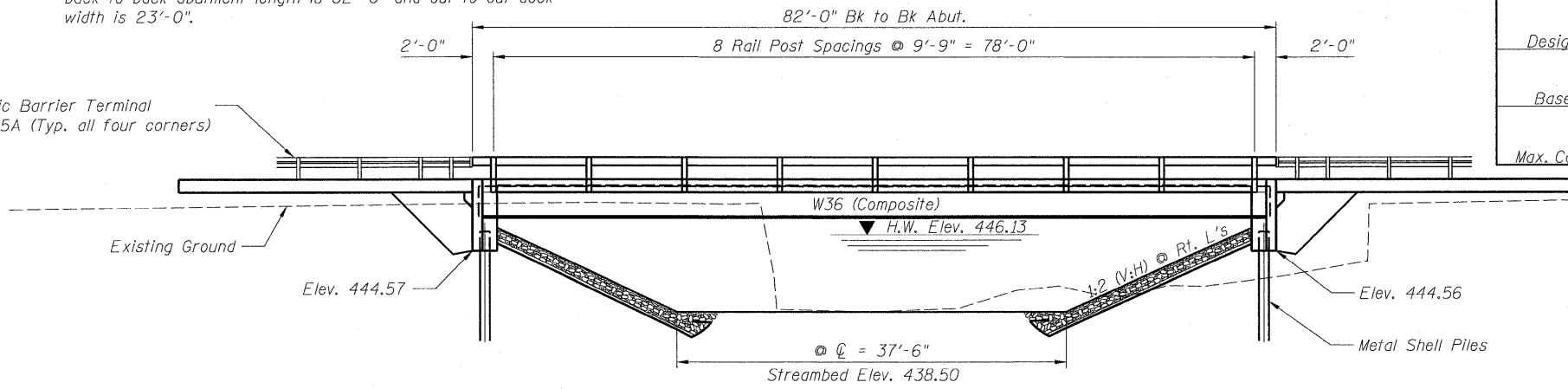
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WATERWAY INFORMATION

Drainage Area =		4.00 sq. mi.		Existing Low Grade Elevation		446.50ft.		Sta. 9+81.00	
				Proposed Low Grade Elevation		446.50ft.		Sta. 9+95.00	
Design	30	Discharge (cfs)		Opening (sq ft)		Natural H.W.E.	Head - (ft.)	Headwater Elevation	
		Exist.	Prop.	Exist.	Prop.			Exist.	Prop.
Base	100	Bridge		446.13		0.34	0.28	446.47	446.41
		Over-the-Road		0.00					
		Total		1806					
Max. Calc.	500	Bridge		446.25		0.59	0.47	446.84	446.72
		Over-the-Road		179.5					
		Total		2482					
		Bridge		446.47		1.18	0.90	447.65	447.37
		Over-the-Road		394.6					
		Total		3430					

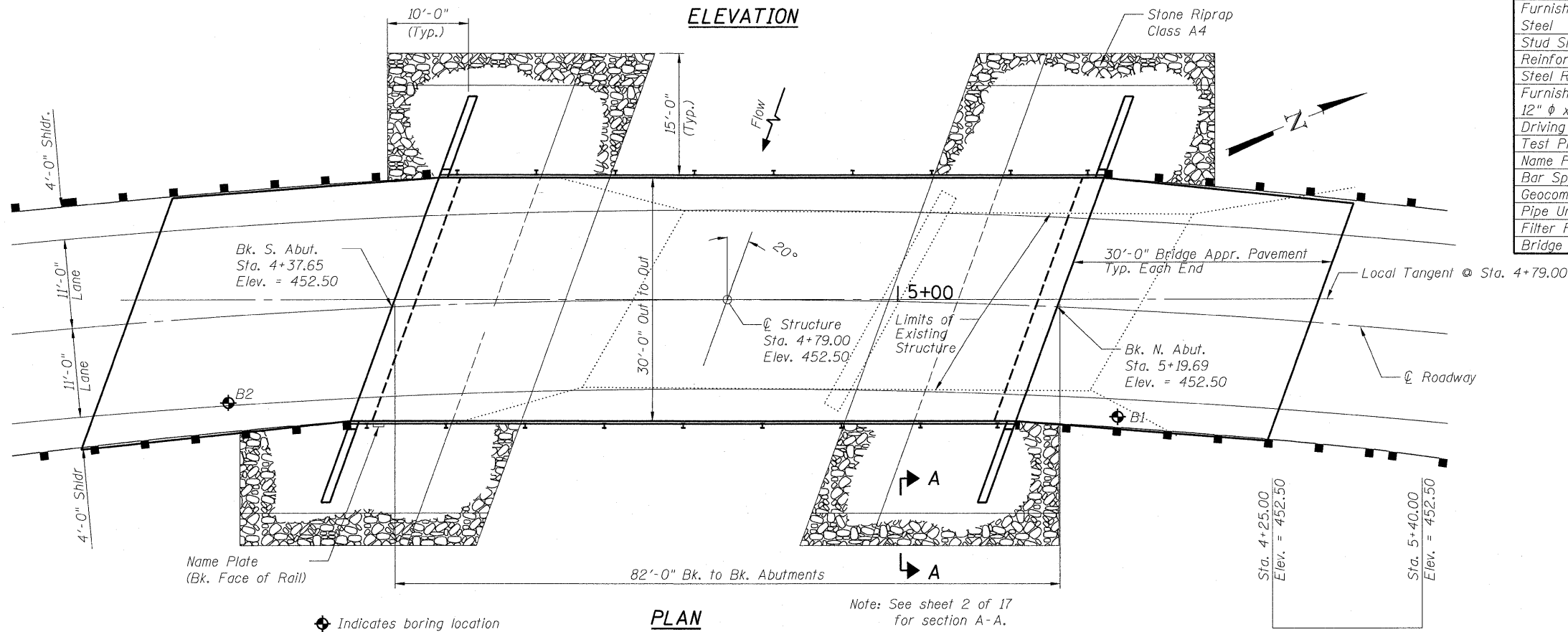
No Salvage

Traffic Barrier Terminal
 Type 5A (Typ. all four corners)



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu Yd	-	116.4	116.4
Stone Riprap, Class A4	Ton	-	315	315
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu Yd	-	118	118
Protective Coat	Sq Yd	300	-	300
Concrete Structures	Cu Yd	-	31.2	31.2
Concrete Superstructure	Cu Yd	88.8	-	88.8
Bridge Deck Grooving	Sq Yd	274	-	274
Furnishing and Erecting Structural Steel	L Sum	1	-	1
Stud Shear Connectors	Each	930	-	930
Reinforcement Bars, Epoxy Coated	Pound	17,200	4,400	21,600
Steel Railing, Type S1	Foot	164	-	164
Furnishing Metal Shell Piles	Foot	-	410	410
12" φ x 0.25"	Foot	-	410	410
Driving Piles	Foot	-	410	410
Test Pile Metal Shells	Each	-	1	1
Name Plates	Each	1	-	1
Bar Splicers	Each	62	-	62
Geocomposite Wall Drain	Sq Yd	-	66.0	66.0
Pipe Underdrains for Structure, 4"	Foot	-	132	132
Filter Fabric	Sq Yd	-	475	475
Bridge Approach Pavement (Special)	Sq Yd	200	-	200



LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

DESIGN STRESSES

FIELD UNITS

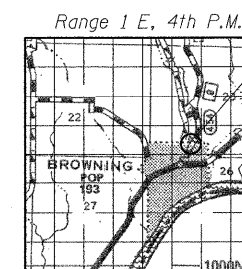
f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (M270 Grade 50 Structural Steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Bedrock Acceleration Coefficient (A) = 0.046g
 Site Coefficient (S) = 1.0

PROFILE GRADE

(Along Roadway)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

F.A.S. ROUTE 454 OVER
 DUTCHMAN'S CREEK
 SECTION 04-00070-00-BR
 SCHUYLER COUNTY
 STATION 4+79.00
 S.N. 085-3055

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	454	04-00070-00-BR	SCHUYLER	30	9
17 SHEETS				CONTRACT NO. 93499	
FED. ROAD DIST. NO. -		ILLINOIS FED. AID PROJECT			

DESIGN SCOUR ELEVATION	N & S Abut. 444.56
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DUTCHMAN'S CREEK
 BUILT 20 BY
 SCHUYLER COUNTY
 SECTION 04-00070-00-BR
 F.A.S. RTE 454 STATION 4+79.00
 S.N. 085-3055
 LOADING HL-93

NAME PLATE
 See Std. 515001



DESIGNED	NIWINSKI
CHECKED	TRELLO
DRAWN	VERENSKI
CHECKED	TRELLO



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current A.A.S.H.T.O. L.R.F.D. Bridge Design Specifications.

Expires: 11/30/10

Michael J. Trello
 Signed
 9/13/09
 Dated